

## REMARKS

5 Claims 1-18 are rejected under 35 U.S.C. 112, first  
paragraph, as containing subject matter which was not  
described in the specification in such a way as to  
reasonably convey one skilled in the relevant art that  
the inventor(s), at the time the application was filed,  
had possession of the claimed invention. Claims 1-18  
10 are rejected under 35 U.S.C. 112, second paragraph,  
as being indefinite for failing to particularly point  
out and distinctly claim the subject matter which  
applicant regards as the invention. Claims 1-4 and  
9-13 are rejected under 35 U.S.C. 103(a) as being  
15 unpatentable over Gaikema et al. (US 4689936). Claims  
5, 6, 14, 16, and 17 are rejected under 35 U.S.C. 103(a)  
as being unpatentable over Gaikema et al. (US 4689936),  
and further in view of Mueller et al. (US 4404241).  
Claims 7 and 18 are rejected under 35 U.S.C. 103(a)  
20 as being unpatentable over Gaikema et al. (US 4689936),  
and further in view of Lesser (US 5012061). Claims  
8 and 15 are rejected under 35 U.S.C. 103(a) as being  
unpatentable over Gaikema et al. (US 4689936), and  
further in view of Inoue (US 4769175).

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### **1. Rejection over claims 1-18 under 35 U.S.C 112, first paragraph:**

30 Claims 1-18 are rejected under 35 U.S.C. 112, first  
paragraph, as containing subject matter which was not  
described in the specification in such a way as to  
reasonably convey one skilled in the relevant art that  
the inventor(s), at the time the application was filed,

had possession of the claimed invention.

5 It is noted that newly amended independent claims 1 and 10, lines 3-7 and 6-10, respectively, now recite "each of the gaps comprising two edges approximately in contact with each other to form an approximately closed gap". However, Applicants have not pointed out any express or inherent support of the term "approximately" in the specification, nor does the  
10 Examiner find "approximately" being inherently supported by Fig.2A to Fig.2C appear to illustrate that the gaps are in physical contact.

**Response:**

15 Claims 1 and 10 are amended and the word "approximately" in the description of the gaps is removed. Reconsideration of the amended claims 1 and 10 is hereby requested.

20 Claims 2-9 and 11-18 are dependent on the amended claims 1 and 10 and should be allowed if the amended claims 1 and 10 are allowed. Reconsideration of claims 2-9 and 11-18 is hereby requested.

25 **2. Rejection over claims 1-18 under 35 U.S.C 112, second paragraph:**

Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the  
30 subject matter which applicant regards as the invention.

In newly amended claims 1 and 10, lines 3-7 and 6-10, respectively, the term "approximately" is vague and indefinite, i.e., it is not clear as to whether the gaps are closed or open.

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Also, in view of the amended structure of the gaps, the structure of the composite film is vague and indefinite. In particular, in newly amended claim 1, line 9, the phrase "attached to one side" is vague and indefinite, i.e., it is not clear which side the nonstick sealing layer is attached to the polymer composite layer.

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**Response:**

Claims 1 and 10 are amended and the word "approximately" in the description of the gaps is removed. In addition, Applicant wants to point out that the nonstick sealing layer can be attached to either side of the polymer composite layer without any restriction, though only an embodiment in which the nonstick sealing layer is attached to the top side of the polymer composite layer is shown in Fig.4 Reconsideration of the amended claims 1 and 10 is hereby requested.

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Claims 2-9 and 11-18 are dependent on the amended claims 1 and 10 and should be allowed if the amended claims 1 and 10 are allowed. Reconsideration of claims 2-9 and 11-18 is hereby requested.

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**3. Rejection over claims 1-4 and 9-13 under 35 U.S.C 103(a) :**

Claims 1-4 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gaikema et al. (US 4689936), substantially for the reasons set forth in pages 3 to 4.

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**Response:**

Claims 1 and 10 are amended by particularly pointing out the feature of the present invention, which has been discussed with the Examiner in the telephone interview. The newly added portions in the amended claims 1 and 10 are clearly shown in Fig. 2A-2C and disclosed in the amended specification on page 9, the first paragraph of the present application. No new matter is introduced.

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To show the major differences/non-obviousness, the amended claim 1 is repeated below:

"1. (Third amended) A composite film comprising:  
20 a polymer composite layer having two sides with a plurality of tiny gaps, **each of the gaps comprising two edges physically in contact with each other to form a closed gap when a pressure difference between the two sides of the composite film is approximately zero;** and  
25 a nonstick sealing layer attached to one side of the polymer composite layer to seal the gaps and make the gaps become air impermeable when the pressure difference is approximately zero;  
30 wherein when the pressure difference between the two sides of the composite film increases, each of the gaps are enlarged by the air pressure exerted on

one side of the composite film and become air permeable, and restore again while the pressure difference is removed."

5        In the present invention, the composite film comprises a main substrate with a plurality of tiny gaps formed by an impression process. Each of the gaps comprises two edges which physically contact with each other to form a closed gap due to the elasticity of  
10       the polymer composite layer when a pressure difference between the two sides of the composite film is approximately zero.

15       In addition, the nonstick sealing layer can be attached to one side of the polymer composite layer to seal the gaps and make the gaps become air impermeable when the pressure difference is approximately zero. Therefore, when the pressure difference between the two sides of the composite film  
20       increases, each of the gaps are enlarged by the air pressure exerted on one side of the composite film and become air permeable, and restore again while the pressure difference is removed.

25       In the previous office action, Examiner uses Challis et al. (US 5672406) as an evident and said that it would have been obvious for one skilled in the art to modify Gaikema's vent openings with various apertures of Challis, motivated by the desire to  
30       accommodate various venting requirements. However, regarding all the Office Action, there is no exact example or description about how the Examiner combines

the prior art references.

Regarding the prior art references, Gaikema et al. discloses a package structure comprising a substrate 3 with a hole 5 and a hot melt material 7 positioned thereon to seal the hole 5. While the package is heated, the hot melt material 7 is melt and an opening 9 on the hot melt material 7 is formed for venting. In Challis' disclosure, a packaging material with a slit comprising two edges contacting with each other is disclosed. When the temperature increases, the packaging material is bent since packaging material comprising at least two plastic layers having different coefficients of thermal expansion and the slit thereon is enlarged thereby.

**Applicant wants to point out that the Gaikema et al. and the Challis et al. can not be combined reasonably to achieve a similar structure or function as the present invention.** For example, it is clear that if the feature of Challis' disclosure, which is the slit having two edges contacting with each other, is combined to the Gaikema's invention, it fails because the Gaikema's invention requires a hole structure with a certain width for venting. It also fails if the hot melt sealing layer in Gaikema's disclosure is combined to the Challis invention since the hot melt sealing layer prevents the packaging material in the Challis' invention from being bent to enlarge the slit.

From the aforementioned reasons, the Applicant

believes that the amended claim 1 of the present application shows difference/non-obviousness since the prior art reference cant not be combined reasonably as the statement in the previous Office  
5 Action. It is obvious that the amended claim 10 also shows difference/non-obviousness in the same manner. Reconsideration of the amended claims 1 and 10 is politely requested.

10 Claims 2-4, 9, and 11-13 are dependent on the amended claim 1 and should be allowed if the amended claims 1 and 10 are allowed. Reconsideration of claims 2-4, 9, and 11-13 is hereby requested.

15 **4. Rejection over claims 5, 6, 14, 16, and 17 under 35 U.S.C 103(a) :**

Claims 5, 6, 14, 16, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gaikema et al. (US 4689936), and further in view of Mueller et  
20 al. (US 4404241), substantially for the reason set forth in section 9 of Paper No. 17, together with the additional observation as set forth above.

**Response :**

25 Regarding the Mueller's disclosure, only a microwave package with a vent is disclosed. The Applicant believes that the independent claims 1 and 10 of the present application show difference and non-obviousness from the combination of the Mueller's  
30 invention and the Gaikema's invention. Claims 5, 6, 14, 16, and 17 are dependent on the amended claims 1 and 10 and should be allowed if the amended claims

1 and 10 are allowed. Reconsideration of claims 5, 6, 14, 16, and 17 is hereby requested.

**5. Rejection over claims 7 and 18 under 35 U.S.C**

5 **103(a) :**

Claims 7 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gaikema et al. (US 4689936), and further in view of Lesser (US 5012061), substantially for the reason set forth in section 10 of Paper No. 17, together with the additional observation as set forth above.

**Response:**

Regarding the Lesser's disclosure, only a vapor releasing cover is disclosed. The Applicant believes that the independent claims 1 and 10 of the present application show difference and non-obviousness from the combination of the Lesser's invention and the Gaikema's invention. Claims 7 and 18 are dependent on the amended claims 1 and 10 and should be allowed if the amended claims 1 and 10 are allowed. Reconsideration of claims 7 and 18 is hereby requested.

**6. Rejection over claims 8 and 15 under 35 U.S.C**

25 **103(a) :**

Claims 8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gaikema et al. (US 4689936), and further in view of Inoue (US 4769175), substantially for the reason set forth in section 11 of Paper No. 17, together with the additional observation as set forth above.



**Response:**

Claims 8 and 15 are dependent on the amended claims 1 and 10 and should be allowed if the amended claims 1 and 10 are allowed. Reconsideration of claims 8 and 15 is hereby requested.

**7. Introduction of the amended specification on page 9, first paragraph:**

The specification on page 9, first paragraph is amended to detail the description of the edge of each gap in the composite film. The term "each of the gaps 15 comprises two edges approximately in contact with each other to form an approximately closed gap 15" is replaced by "each of the gaps 15 comprises two edges physically in contact with each other to form a closed gap 15" to be identical with the amended claim 1 and 10. The edges are clearly shown in Fig.2A-2C, 3 and 4. The behavior of the edges can be easily found in the original specification on page 8-10 since the behavior of the gaps is fully described. No new matter is introduced.

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**In the specification:**

On page 9, the first paragraph,

5        Please refer to Fig.2A to Fig.2C. Fig.2A to Fig.2C  
are cross-sectional diagrams of air permeable  
structures 102 after performing an impression process  
according to the present invention. These figures are  
in respective combination with Figs.1A to Fig.1C. The  
10       structures 100 in Fig.1A to Fig.1C are partially or  
totally perforated by virtue of an impression process  
in a direction from the top face 12 to the bottom face  
14, which forms a plurality of tiny gaps 15 on the  
structures 102 in Fig.2A to Fig.2C. After the  
15       impression process, the structures 100 in Figs.1A to  
1C are permanently damaged, forming the structures  
102 in Figs.2A to 2C, respectively. As shown in Fig.2A  
to Fig.2C, each of the gaps 15 comprises two edges  
[approximately]physically in contact with each other  
20       to form a[n approximately] closed gap 15 when a  
pressure difference between the two sides of the  
structure 102 is approximately zero. At that time,  
the gaps 15 are approximately closed (pseudo-closed)  
and the surface of the structure 102 has a  
25       pseudo-planar topography with multiple phases. When  
the structure 102 swells due to external pressure,  
the gaps 15 enlarge\_and become air permeable, and  
restore again when the external pressure is removed.

30       **In the claims:**

1. (Fourth amended) A composite film comprising:  
a polymer composite layer having two sides with

a plurality of tiny gaps, each of the gaps  
comprising two edges  
[approximately]physically in contact with each  
other to form a[n approximately] closed gap when  
5 a pressure difference between the two sides of  
the composite film is approximately zero; and  
a nonstick sealing layer attached to one side of  
the polymer composite layer to seal the gaps  
and make the gaps become air impermeable when  
10 the pressure difference is approximately zero;  
wherein when the pressure difference between the  
two sides of the composite film increases, each of  
the gaps are enlarged by the air pressure exerted on  
one side of the composite film and become air permeable,  
15 and restore again while the pressure difference is  
removed.

10. (Fourth amended) A composite film comprising a  
first layer, and a second layer laminated on the first  
20 layer, the composite film comprising a top face on  
the first layer and a bottom face on the second layer,  
the composite film being processed by virtue of an  
impression process, thereby forming a plurality of  
tiny gaps, each of the gaps comprising two edges  
25 [approximately]physically in contact with each other  
to form a[n approximately] closed gap when a pressure  
difference between the two sides of the composite film  
is approximately zero wherein when the pressure  
difference between the two sides of the composite film  
30 increases, each of the gaps are enlarged by the air  
pressure exerted on one side of the composite film  
and become air permeable, and restore again while the

pressure difference is removed.

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Sincerely yours,

Winston Hsu

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Winston Hsu, Patent Agent No.41,526

P.O. BOX 506

Merrifield, VA 22116

U.S.A.

E-mail: winstonhsu@naipo.com.tw

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